### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-008232

Address: 333 Burma Road **Date Inspected:** 03-Aug-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Fawen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

OBG & TOWER Components **Bridge No:** 34-0006 **Component:** 

**Summary of Items Observed:** 

On this date Caltrans OSM Quality Assurance (QA) Inspector, Sandeep Kumar was present during the times noted above for observations relative to the work being performed.

BAY 5

Magnetic Particle Testing

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. CB202C - 011 - 001; 002; 003; 004

2. BK001 - 019 - 050

This QA Inspector observed the following work in progress:

SMAW process of Tack weld joint #002 located on Bike Path BK001 – 021. Welder is identified as 204733. ZPMC QC is identified as Zheng Zhi Wei. The welding variables recorded by QC appeared to comply with the WPS - B - P - 2112.

SMAW process of Tack weld joint #002 located on Bike Path BK001 – 024. Welder is identified as 204733. ZPMC QC is identified as Zheng Zhi Wei. The welding variables recorded by QC appeared to comply with the WPS - B - P - 2112.

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#### BAY 6

#### Ultrasonic Testing

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as OBG Component. The weld designations reviewed are as follows:

1. BP3021 - 001 - 007; 008; 013; 014

#### Magnetic Particle Testing

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. BP3021 – 001 – 067 ~ 090; 117 ~ 128; 103 ~ 114; 091 ~ 102

This QA Inspector observed the following work in progress:

SMAW process welding of weld joint #2A located on WD1 – A305 – 77M – 1. Welder is identified as 066456. ZPMC QC is identified as Shi Yu. The welding variables recorded by QC appeared to comply with the WPS – B – T - 3212 - Tc - U5b - 1.

SMAW process welding of weld joint #32 located on WD1 – A305 – 53M – 2. Welder is identified as 033780. ZPMC QC is identified as Shi Yu. The welding variables recorded by QC appeared to comply with the WPS – B – T - 2112.

SMAW process welding of weld joint #8b located on WD1 – A305 – 77M – 1. Welder is identified as 037743. ZPMC QC is identified as Shi Yu. The welding variables recorded by QC appeared to comply with the WPS – B – T - 3212 - Tc - U5b - 1.

#### BAY 7

This QA Inspector observed the following work in progress:

FCAW process of weld joint #053 located on Side Plate SP3045 – 001. Welder is identified as 051784. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B-P-2112.

FCAW process of weld joint #019 located on Bottom Plate BP3025 – 001. Welder is identified as 051246. ZPMC QC is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

FCAW process of weld joint #004 located on Side Plate SP3045 – 001. Welder is identified as 053609. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B-P-2112.

FCAW process of weld joint #008 located on Bottom Plate BP3026 – 001. Welder is identified as 202841.

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ZPMC QC is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

BAY8

This QA Inspector observed the following work in progress:

FCAW process of Tack weld joint #003 located on Cross Beam CB202E – 013. Welder is identified as 066687. ZPMC QC is identified as Zhang Jing Xin. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

FCAW process of Tack weld joint #002 located on Cross Beam CB202D – 013. Welder is identified as 069118. ZPMC QC is identified as Zhang Jing Xin. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

No Relevant Conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Kumar,Sandeep | Quality Assurance Inspector |
|---------------|---------------|-----------------------------|
| Reviewed By:  | Prue,Erik     | QA Reviewer                 |